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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/730,827	12/08/2003	Tomohiko Kobayashi	FP03-150US	4217
1218	7590	05/17/2005	EXAMINER	
CASELLA & HESPOS 274 MADISON AVENUE NEW YORK, NY 10016			DINH, PHUONG K	
			ART UNIT	PAPER NUMBER
			2839	

DATE MAILED: 05/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

21

Office Action Summary	Application No. 10/730,827	Applicant(s) KOBAYASHI, TOMOHIKO	
	Examiner Phuong KT Dinh	Art Unit 2839	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-8 and 10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6 and 7 is/are allowed.
- 6) ☒ Claim(s) 1,3-5,8 and 10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-5, 8 and 10 are rejection under 35 U.S.C. 103(a) as being unpatentable over Makita.

3. Regarding claims 1, 3, 8, 10, Makita, see figures 5-6B, discloses a sealing plug 25 for a watertight connector, the sealing plug being formed with at least wire 27 insertion hole through which a wire 27 is to be inserted and being at least partly insertable into a cavity 31 of a connector housing 20 to provide a watertight sealing 45 between an inner wall 31 of the cavity and the wire wherein at least one outer lip 49 formed on an outer surface of the sealing plug 15 for contact with the inner wall of the cavity 31 and at least one inner lip 43 is formed on an inner surface of the sealing plug 15 for contact with the wire, the outer lip 49, see figure 6B, being longer along a longitudinal direction of the wire than the inner lip 43, the series of projections at 49 being read as a single lip. The lip 49 having much greater contact area at wall 31 than do the inner lips 43 at wire 27 should provide greater frictional resistance than do the inner lips. Note also the wedge effect at 49 (column 8, lines 1-3) and that throughout the specification. Makita refers to a "tight surface contact of the plug at 31". However the reference does not discuss relative friction force at the wire and at wall 31. Therefore, it

Art Unit: 2839

is submitted, that in view of above discussion it would have been obvious to form wall 31 friction to be greater than that at the wire, so that there will be no danger of the sealing plug being pulled out.

4. Regarding claim 4, Makita discloses there are more of the outer lips 49 than the inner lips 43 so that a total frictional resistance between the inner wall of the cavity 31 and the outer lips 49 exceeds a total frictional resistance between the wire 27 and the inner lips 43.

Regarding claim 5, Makita discloses the outer lips 49 and the inner lips 43 are substantially aligned. For claim 8, term "mirror finish" relates to a degree of smoothness. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify to form the Makita bores to be as smooth as necessary for desired sealing. For claim 10 features clearly met by Makita device.

Allowable Subject Matter

5. Claims 6, 7 are allowed.

6. The following is an examiner's statement of reasons for allowance:

7. For claims 6, 7, the reasons allowable are stated in the previous office action.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Art Unit: 2839

Response to Arguments

For claim 8, note that minor finish would appear to reduce friction at the wall of bore 24, which is opposite to the objects of the invention. Applicant asked to discuss this matter in next response. Previous indicated allowability at claim 8 materials, upon reconsideration has been withdrawn.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong KT Dinh whose telephone number is 571-272-2090. The examiner can normally be reached on 8 -5, 5 days a week.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, TC Patel can be reached on 571-272-2098. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Phuong Dinh', is written over the typed name and date.

Phuong Dinh\
May 06, 2005.